CYCLIC REDUNDANCY CHECK BASED
MESSAGE PASSING IN TURBO PRODUCT CODE DECODING

ABSTRACT OF THE DISCLOSURE

A method of decoding a turbo product code (TPC) code word comprises performing a cyclic redundancy check (CRC) on each of a plurality of code blocks of the TPC code word. The bits of code blocks of the TPC code word which pass the CRC are assigned an artificially high probability confidence measure, such as an artificially high log-likelihood ratio. Assigning these bits an artificially high probability confidence measure allows an iterative process, between a soft decision algorithm and a TPC decoder, to be less complex and to converge on a correct decoding solution more quickly. Apparatus for implementing the method are also provided.